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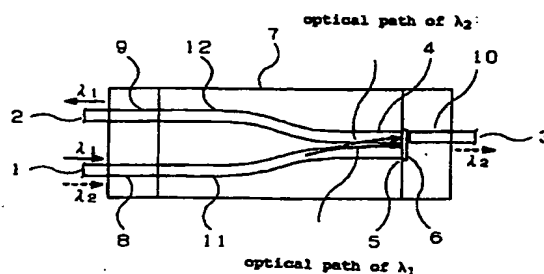
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(54) Waveguide type wavelength multiplexing/demultiplexing module

(57) In a waveguide type wavelength multiplexing/demultiplexing (WDM) module, a wavelength multiplexing/demultiplexing function can be realized with a half length of the conventional directional coupling device. The waveguide type WDM module is comprised of: a common waveguide for conducting first signal light having a first wavelength and second signal light having a second wavelength; common light input/output means coupled to the common waveguide; a substrate containing a WDM unit for multiplexing/demultiplexing the first signal light and the second signal light; a first waveguide for conducting the first signal light; first light input/output means optically coupled to the first waveguide; and second light input/output means for inputting/outputting the second signal light. The WDM unit includes a directional coupling type WDM device constituted by two sets of waveguides connected to the first waveguide and the common waveguide respectively. The directional coupling type WDM device is comprised of: a first edge surface perpendicular to a waveguide for constituting a directional coupling unit at a position equal to a half of a complete coupling length with respect to the first signal light in the directional coupling unit; and wavelength selecting means arranged at the first edge surface, for reflecting the first signal light and for passing there-through the second signal light; and the second light input/output means is comprised of coupling means for optically being coupled to the second signal light at the first edge surface.

Fig. 2



EP 0 778 478 A3



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EUROPEAN SEARCH REPORT

Application Number
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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
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The present search report has been drawn up for all claims			
Place of search BERLIN		Date of completion of the search 22 July 1997	Examiner Luck, W
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons ----- & : member of the same patent family, corresponding document</p>			

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